IN THE DRAWINGS:

Enclosed are two substitute drawing sheets having Figs. 5 and 6. The corrections are shown in red ink.

IN THE SPECIFICATION:

On page 6, line 9, after "motor" insert --(not shown)--.

On page 6, line 10, after "pinion" insert --(not shown)--.

On page 6, line 11, after "gear box" insert --(not shown)--.

On page 6, line 25, after "motor" insert --(not shown)--.

On page 7, line 23, after "motor" insert --(not shown)--.

On page 9, line 2, change "9a" to read --9b--.

On page 9, line 3, change "9b" to read --9a--.

IN THE ABSTRACT:

Please include the attached separate page entitled "Abstract of the Disclosure" to the application.

REMARKS

Election:

The Examiner required the applicant to elect among species. Applicant elected Group III.

Priority:

The Examiner acknowledged the claim to foreign priority.

Drawings:

Enclosed are two (2) substitute sheets with corrections shown in red ink. Formal drawings will be submitted upon notice of allowance. No new matter has been added.

Abstract:

Attached is a fresh Abstract of the Disclosure on a separate sheet. Again, no new matter has been added.

Specification:

The various informalities noted by the Examiner have been amended as shown above.

§112 Rejection:

Claims 26, 37, and 48 have been amended to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

§103 Rejection:

The Examiner relies on Dutina in view of Lindstrom. The Examiner believes that Dutina comprises the claimed features except the support means extending upstream and downstream of the separation unit. With regard to amended claims 26 and 48, Dutina lacks a feeder means in the form of a pusher arm (the feeder means of Dutina comprises feed rollers 3), and a constraining means to constrain lateral movement of the elongate member passing through the separation unit (the rollers 14, 23 in Dutina are located upstream of the separation unit 4). With regard to the limitation of amended claims 26 and 48 for separated parts of the elongate member issuing from the separation unit to be free to move laterally with respect to the cutter, Dutina does not teach this limitation. The multiple cut pieces (separate parts of the elongated member)

issuing from the cutter 4 could not move laterally without touching an adjacent piece. Such an occurrence would prevent the Dutina machine from working properly.

Further, the Examiner relies on Lindstrom to provide those features missing from Dutina with respect to original claims 26 and 48. As with Dutina, Lindstrom uses powered rollers 13, 14 to push/pull a piece of wood through the separation unit (heart split saw 9). Lindstrom does not describe a pusher arm which exerts a force on an end of the elongate member distal from the separation unit as now claimed in amended claims 26 and 48. Lindstrom does not provide means to constrain lateral movement of said elongate member passing through the separation unit as now claimed in amended claims 26 and 48. As with Dutina, guide rollers 17, 18 are upstream of the separation unit 9. The device of Lindstrom does not provide freedom for the separated parts issuing from the separation unit 9 to move laterally with respect to the blade 12 as now claimed in amended claims 26 and 48. Downstream of the blade 12 the work piece 10 is held by powered rollers 14, which grip the work piece 10 and pull it through the separation unit 9. When being so gripped, it would not be possible for separated pieces of wood issuing from the separation unit 9 to move freely laterally of the blade.

Neither Dutina nor Lindstrom disclose separation of a metal work piece. Both relate to the separation of wooden work pieces.

The features of amended claims 26 and 48 are not taught or disclosed in either Dutina or Lindstrom separately or in combination.

These are certain key differences between the separation device of the invention, and the disclosures of Dutina and Lindstrom which render the invention as claimed in amended claims 26 and 48 not obvious in view of the disclosures of these documents.

First, looking at the limitation of the present invention, the object being separated is a "cold elongate metallic member," whereas both Dutina and Lindstrom relate to devices for cutting wood.

Second, the limitation of a device for separating "cold elongate metallic members" are quite different from the requirements for cutting wood. In order to successfully separate cold metallic members three features are important:

(1) The elongate member being separated must be constrained against lateral movement in the region of the cutter (guide rollers freely rotatable about a substantially vertical axis.

(2) Downstream of the cutter, the separated (or partially separated) sections of the elongate member must be free to move laterally.

(3) The force exerted on the elongate member to feed it through the separation unit must be exerted on the elongate member as far away from the cutter as possible (pusher arm). Each of these features contributes to reducing the buildup of the resonance in the elongate member in the vicinity of the blade.

The result of a buildup of resonance in the elongate metallic member in the region of the cutter is that the cutter begins to wander, and the resulting cut is not straight. One of the advantages of the separation device of the present invention is its ability to produce finished products. The cut edges of the separated pieces can be welded to without any further treatment processes, saving large amounts of money. It should be noted that the wood cutters of Dutina and Lindstrom do not produce finished products. The cut pieces issuing from the machines would require a further treatment, such as planing before they could be used.

In both Dutina and Lindstrom, the elongate pieces of wood are fed through the separation unit by means of rollers close to the cutter (either side of the cutter in Lindstrom). Also, the vertical rollers (17, 18) of Lindstrom and (14, 23) of Dutina are upstream of the separation unit, rather than being part of it; and, hence, they do not serve to constrain lateral movement to the elongate member as it passes through the separation unit. They simply align the piece of wood with the blade/blades. Neither of the documents foresee the cut pieces of wood being free to move laterally downstream of the separation unit.

Dutina does seeks to address the problem of vibration, and the buildup of forces in a wood work piece. Dutina solves this problem by guide means downstream of the circular saw blades 4, which reposition the guide rollers 14, 23 upstream of the saw blades 4. However, the problem of vibration in a wood work piece is quite different than the problems of cutting an elongate metallic member. Hence, the teaching of Dutina would not be helpful to one skilled in the art of separating cold metallic members in attempting to arrive at the present invention.

Lindstrom does not deal with the questions of vibration and force buildup in the blade at all. Rather, it is concerned with the automatically guiding a log through a heart split saw in a path which substantially exactly follows the curve of the log.

Conclusion

In light of the corrections, amendments, arguments, and remarks, the applicant asks the

Examiner to reconsider the amended claims and issue a notice of allowance. Formal drawings will be submitted upon notice of allowance.

Respectfully submitted,
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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service, with sufficient postage as First Class Mail (37 CFR 1.8(a)), in an envelope addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Date: February 27, 2001

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